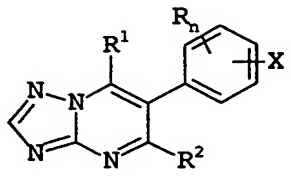
We claim:

1. A triazolopyrimidine of the formula I



I

where the index and the substituents are as defined below:

R^1 is C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl, C_2-C_{10}-alkynyl, C_3-C_{10}-cycloalkyl, C_3-C_{10}-cycloalkenyl, phenyl, naphthyl or a five- to ten-membered saturated, partially unsaturated or aromatic heterocycle which is attached via carbon to the triazolopyrimidine and contains one to four heteroatoms from the group consisting of O, N and S,

where R^1 may be partially or fully halogenated or substituted by one to four identical or different groups R^a:

R^a is halogen, cyano, nitro, hydroxyl, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_1-C_6-alkylcarbonyl, C_3-C_6-cycloalkyl, C_1-C_6-alkoxy, C_1-C_6-haloalkoxy, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkylthio, C_1-C_6-alkylamino, di-C_1-C_6-alkylamino, C_2-C_6-alkenyl, C_2-C_6-alkenyloxy, C_3-C_6-alkynyloxy, C_3-C_6-cycloalkyl, phenyl, naphthyl, a five- to ten-membered saturated, partially unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S,
where these aliphatic, alicyclic or aromatic groups for their part may be partially or fully halogenated or carry one to three groups R^b:

R^b is halogen, cyano, nitro, hydroxyl, mercapto, amino, carboxyl, aminocarbonyl, aminothiocarbonyl, alkyl, alkenyl, alkynyl, alkenyloxy, alkynyloxy, alkoxy, alkylthio, alkylamino, dialkylamino,

formyl, alkylcarbonyl, alkylsulfonyl, alkylsulfoxyl, alkoxycarbonyl, alkylcarbonyloxy, alkylaminocarbonyl, dialkylaminocarbonyl, alkylaminothiocarbonyl, dialkylaminothiocarbonyl, where the alkyl groups in these radicals contain 1 to 6 carbon atoms and the abovementioned alkenyl or alkynyl groups in these radicals contain 2 to 8 carbon atoms and the abovementioned groups may be partially or fully halogenated;

and/or one to three of the following radicals:

cycloalkyl, cycloalkoxy, heterocyclyl, heterocyclyloxy, where the cyclic systems contain 3 to 10 ring members; aryl, aryloxy, arylthio, aryl—C_1—C_6—alkoxy, aryl—C_1—C_6—alkyl, hetaryl, hetaryloxy, hetarylthio, where the aryl radicals preferably contain 6 to 10 ring members and the hetaryl radicals 5 or 6 ring members, where the cyclic systems may be partially or fully halogenated or substituted by alkyl or haloalkyl groups;

R^2 is C_1-C_4-alkyl which may be substituted by halogen, cyano, nitro or C_1-C_2-alkoxy;

n is 0 or an integer from 1 to 4;

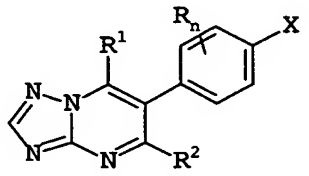
R is halogen, cyano, C_1-C_6-alkyl, C_2-C_{10}-alkenyl, C_2-C_{10}-alkynyl, C_1-C_6-haloalkyl, C_2-C_{10}-haloalkenyl, C_1-C_6-alkoxy, C_2-C_{10}-alkenyloxy, C_2-C_{10}-alkynyloxy, C_1-C_6-haloalkoxy, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, C_3-C_6-cycloalkoxy, C_1-C_8-alkoxycarbonyl, C_2-C_{10}-alkenyloxycarbonyl, C_2-C_{10}-alkynyloxycarbonyl, aminocarbonyl, C_1-C_8-alkylaminocarbonyl, di-(C_1-C_8-)alkylaminocarbonyl, C_1-C_8-alkoximinoalkyl, C_2-C_{10}-alkenyloximinoalkyl, C_2-C_{10}-alkynyloximinoalkyl, C_1-C_8-alkylcarbonyl, C_2-C_{10}-alkenylcarbonyl, C_2-C_{10}-alkynylcarbonyl, C_3-C_6-cycloalkylcarbonyl, or a five- to ten-membered saturated, partially unsaturated or aromatic heterocycle which contains one to four heteroatoms from the group consisting of O, N and S;

X is SO_m-R^x, NR^xR^y or NR^x-(C=O)-R^y;

R^x, R^y: are: hydrogen, C_1-C_6-alkyl, C_2-C_{10}-alkenyl, C_2-C_{10}-alkynyl, C_3-C_6-cycloalkyl, C_3-C_6-cycloalkenyl, where the above radicals may be partially or fully halogenated or substituted by cyano, C_1-C_4-alkoximino, C_2-C_4-alkenyloximino, C_2-C_4-alkynyloximino or C_1-C_4-alkoxy;

m is 0 or an integer 1 to 3.

2. A triazolopyrimidine of the formula I'



I'

where the index and the substituents are as defined below:

R^1 is C_3-C_8-alkyl, C_3-C_8-alkenyl, C_3-C_8-alkynyl, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl; where R^1 may be partially or fully halogenated or substituted by one to four identical or different groups R^a:

R^a is halogen, cyano, C_1-C_6-alkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkoxy, C_1-C_6-alkoxycarbonyl, C_1-C_6-alkoximino, C_2-C_6-alkenyloximino, C_2-C_6-alkynyloximino, C_3-C_6-cycloalkyl, C_5-C_6-cycloalkenyl, where the aliphatic or alicyclic groups for their part may be partially or fully halogenated or carry one to three groups R^b:

R^b is halogen, cyano, C_1-C_6-alkyl, C_1-C_6-haloalkyl, C_2-C_6-alkenyl, C_2-C_6-alkynyl, C_1-C_6-alkylcarbonyl, C_1-C_6-haloalkylcarbonyl or C_1-C_6-alkoxy;

R^2 is C_1-C_4-alkyl which may be substituted by halogen;

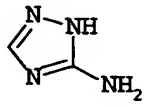
n is an integer from 0 to 2;

R is fluorine, chlorine, bromine, cyano, C_1-C_6-alkyl, C_1-C_6-alkoxy;

X is SO-R^x, SO_2-R^x or NR^x-$(C=O)$-R^y;

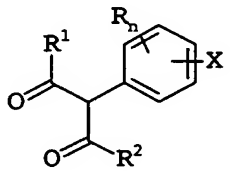
R^x, R^Y are: hydrogen, C_1-C_6-alkyl, C_2-C_6-alkenyl or C_3-C_6-cycloalkyl, where the above radicals may be partially or fully halogenated.

3. A process for preparing compounds of the formula I as claimed in claim 1 or 2 which comprises reacting 5-aminotriazole of the formula II



II

with dicarbonyl compounds of the formula III



III

where the substituents R, X, R^1 and R^2 and the index n are as defined in claim 1.

4. A dicarbonyl compound of the formula III, which is defined in claim 3.

5. A composition suitable for controlling harmful fungi, comprising a solid or liquid carrier and a compound of the formula I as claimed in claim 1.

6. The use of the compounds I as claimed in claim 1 for preparing a composition suitable for controlling harmful fungi.

7. A method for controlling harmful fungi, which comprises treating the fungi or the materials, plants, the soil or seeds to be protected against fungal attack with an effective amount of a compound of the formula I as claimed in claim 1.